Job ID: 240-72811-1

Laboratory: TestAmerica Canton

4

Narrative

CASE NARRATIVE

Client: Parsons Corporation

Project: R & H Cincinnati - GW Sampling

Report Number: 240-72811-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/3/2016 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.2° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples 20161202UAW09-60V54N (240-72811-1), 20161202CINFB-1 (240-72811-2) and TRIP BLANKS (240-72811-3) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 12/12/2016.

Methylene Chloride was detected in method blank MB 240-259041/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)

Samples 20161202UAW09-60V54N (240-72811-1) and 20161202CINFB-1 (240-72811-2) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 12/05/2016 and analyzed on 12/08/2016.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and no corrective action is required.

Job ID: 240-72916-1

Laboratory: TestAmerica Canton

Narrative

4

CASE NARRATIVE

Client: Parsons Corporation

Project: R & H Cincinnati - GW Sampling

Report Number: 240-72916-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/7/2016 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples 20161206UAW01-80V76N (240-72916-1), 20161206UAW01-30V28.5N (240-72916-2), 20161206UAW25-20V20N (240-72916-3), 20161205UAW09-20V24N (240-72916-4) and TRIP BLANK (240-72916-5) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 12/13/2016.

The laboratory control sample (LCS) for 259201 recovered outside control limits for Carbon Tetrachloride. This analyte was biased high in the LCS and was not detected in the following associated samples; therefore, the data have been reported.20161206UAW01-80V76N (240-72916-1), 20161206UAW01-30V28.5N (240-72916-2), 20161206UAW25-20V20N (240-72916-3), 20161205UAW09-20V24N (240-72916-4), and TRIP BLANK (240-72916-5).

1,1,2,2-Tetrachloroethane and Styrene failed the recovery criteria low for the MS of sample 280-91908-2 in batch 240-259201. Trichloroethene failed the recovery criteria high. For the MSD of sample 280-91908-2 in batch 240-259201, 1,1,2,2-Tetrachloroethane and Styrene failed the recovery criteria low. 1,2,4-Trichlorobenzene, 1,2-Dibromo-3-Chloropropane and Trichloroethene failed the recovery criteria high. Also, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloro-1,2,2-trifluoroethane, 1,2,4-Trichlorobenzene and Cyclohexane exceeded the RPD limit.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Job ID: 240-73120-1

Laboratory: TestAmerica Canton

Narrative

4

CASE NARRATIVE

Client: Parsons Corporation

Project: R&H Cincinnati - GW Sampling

Report Number: 240-73120-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/9/2016 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.4° C and 0.8° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples 20161207UAW02-20V15N (240-73120-1), 20161207UAW04-20V16N (240-73120-2), 20161208MW-EPA-4V19N (240-73120-3), 20161208UAW15-50V42N (240-73120-4), 20161208UAW11-40V39N (240-73120-5), 20161207UAW02-40V41N (240-73120-6), 20161207UAW02-40V41FD (240-73120-7), 20161207UAW03-20V15N (240-73120-8), 20161208UAW26-70V72N (240-73120-9), 20161208UAW15-20V19N (240-73120-10), 20161208UAW11-10V12N (240-73120-11) and TRIP BLANK (240-73120-12) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 12/17/2016.

Methylene Chloride was detected in method blank MB 240-259893/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Refer to the QC report for details.

Carbon tetrachloride and Trichlorofluoromethane failed the recovery criteria high for LCS 240-259893/4. Refer to the QC report for details.

1,2-Dichlorobenzene failed the recovery criteria low for the MS of sample 20161208UAW26-70V72NMS (240-73120-9) in batch

CASE NARRATIVE

Client: Parsons Corporation

Project: R & H Cincinnati - GW Sampling

Report Number: 240-73181-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/10/2016 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 1.4° C and 3.0° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples 20161208UAW16-10V13N (240-73181-1), 20161208UAW16-10V13FD (240-73181-2), 20161209UAW13-20V14N (240-73181-3), 20161209UAW08-20V15N (240-73181-4), 20161209UAW07-20V15N (240-73181-5), 20161209UAW12-20V14N (240-73181-6), 20161209UAW05-20V14N (240-73181-7), 20161209UAW06-20V16N (240-73181-8) and TRIP BLANK (240-73181-9) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 12/20/2016, 12/21/2016 and 12/22/2016.

Methylene Chloride was detected in method blank MB 240-260221/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Methylene Chloride was detected in method blank MB 240-260435/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged. Methylene Chloride was detected in method blank MB 240-260596/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Job ID: 240-73378-1

Laboratory: TestAmerica Canton

Narrative

4

CASE NARRATIVE

Client: Parsons Corporation

Project: R & H Cincinnati - GW Sampling

Report Number: 240-73378-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/15/2016 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.6° C and 1.0° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)

Samples 20161213UAW21-30V27N (240-73378-1), 20161213MW-EPA-1V14N (240-73378-2), 20161213CINRB-1 (240-73378-3), 20161214UAW17-40V36N (240-73378-4), 20161214UAW20-60V56N (240-73378-5), 20161214UAW20-60V56FD (240-73378-6), 20161213UAW23-20V23N (240-73378-7), 20161213UAW21-80V72N (240-73378-8), 20161214UAW14-10V12N (240-73378-9), 20161214MW-EPA-2V16N (240-73378-10) and TRIP BLANK (240-73378-11) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 12/21/2016 and 12/22/2016.

Methylene Chloride was detected in method blank MB 240-260434/7 at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Methylene Chloride was detected in method blank MB 240-260596/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Acetone failed the recovery criteria low for the MS of sample 20161213MW-EPA-1V14N (240-73378-2) in batch 240-260434.

Samples 20161213MW-EPA-1V14N (240-73378-2)[200X], 20161213MW-EPA-1V14N (240-73378-2)[2000X], 20161214UAW20-60V56N

Job ID: 240-73513-1

Laboratory: TestAmerica Canton

Narrative

4

CASE NARRATIVE

Client: Parsons Corporation

Project: DOW Cincinnati - GW Sampling

Report Number: 240-73513-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Canton attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT
The samples were received on 12/17/2016 8:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 0.6° C and 1.4° C.

VOLATILE ORGANIC COMPOUNDS (GCMS)
Samples 20161214UAW10-50V50N (240-73513-1), 20161214UAW22-20V16N (240-73513-2), 20161215UAW24-70V68N (240-73513-3), 20161215UAW10-80V77N (240-73513-4), 20161214MW-EPA-3V14N (240-73513-5), 20161214UAW18-20V15N (240-73513-6), 20161215UAW27-50V43N (240-73513-7), 20161215UAW19-80V74N (240-73513-8), 20161215CINRB-2 (240-73513-9) and TRIP BLANK (240-73513-10) were analyzed for volatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8260B. The samples were analyzed on 12/27/2016.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GCMS)
Samples 20161214UAW10-50V50N (240-73513-1), 20161214UAW22-20V16N (240-73513-2), 20161215UAW24-70V68N (240-73513-3), 20161215UAW10-80V77N (240-73513-4), 20161214MW-EPA-3V14N (240-73513-5), 20161214UAW18-20V15N (240-73513-6), 20161215UAW27-50V43N (240-73513-7), 20161215UAW19-80V74N (240-73513-8) and 20161215CINRB-2 (240-73513-9) were analyzed for semivolatile organic compounds (GCMS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 12/20/2016, 12/22/2016 and 12/23/2016 and analyzed on 12/23/2016, 12/27/2016 and 12/28/2016.

Surrogates are added during the extraction process prior to dilution. When the sample is diluted, surrogate recoveries are diluted out and